

Timothy Bates
Curriculum Vitae (last updated July 2026)
tim.bates@rutgers.edu — Website

EDUCATION

Rutgers New Brunswick

2023-Present:
Ph.D. Candidate in Math

Texas A&M University

2019-2023:
M.S. in Mathematics
B.S. in Mathematics
Minor in Physics

RESEARCH

Non-Reviewed Articles

Bates, Timothy, and Aakash Parikh. "A note on the knot Floer homology of freely 2-periodic knots and their quotients." arXiv preprint arXiv:2606.21834 (2026). ——— —

TEACHING AND ADVISING

Courses as Instructor

Course Title: Math 354 Linear Optimization
Semester: Summer 2025

Courses as Teaching Assistant

Course Title: Math 152: Calculus 2
Semesters: Spring 2025, Fall 2025 Spring 2026

Course Title: Math 251: Calculus 3
Semesters: Fall 2024

Students Mentored via the Directed Reading Program

Student Name: Hechen (Lawrence) Zhang
Semester: Summer 2026
Topic: Quantum Topology

Student Name: Hamshika Rajkumar
Semester: Fall 2025
Topic: Algebraic Topology

Student: Herbert Huachaca
Semester: Summer 2025
Topic: Point Set Topology and Topological Groups

Student: Pranav Shankar
Semester: Summer 2025
Topic: Point Set Topology and Differential Topology

Student: Nadia Belov
Semesters: Fall 2024 and Spring 2025
Topic: Algebraic Topology and Homological Algebra

Student: Jeff Tang
Semesters: Spring 2024
Topic: Knot Theory

CONFERENCES

CONFERENCES ORGANIZED

2026 Graduate Student Topology and Geometry Conference at Rutgers New Brunswick

CONFERENCE TALKS

Title: Thurston Polytopes and Links
Conference: 2023 TXLA Undergraduate Math Conference

Title: Scalar Acceleration Radiation
Conference: 2022 Texas Differential Equations Conference

CONFERENCES ATTENDED

- PCMI Summer School in Knotted Surfaces in 4-Manifolds, July 2026
- 2026 GSTGC at Rutgers New Brunswick, April 2025
- Georgia International Topology Conference 2025
- 2025 GSGTC at Indiana Bloomington, April 2025
- Georgia Topology Conference and Summer School, May 2024
- Cornell Topology Festival, April 2024
- GSGTC at MSU, April 2024
- 2024 Geometry and Topology Workshop at UCLA, UCLA, January 2024
- Georgia Topology Conference, UGA, May 2023
- TXLA Undergraduate Math Conference, Louisiana State University, March 2023
- Winter School in Low dimensional topology and singularities, Erdős Center, January 2023
- FullingFest, Texas A&M University, Texas A&M University, October 2022
- Texas Differential Equations Conference, Texas A&M University, October 2022
- Graduate Student Concentration Week on Metric Geometry, Texas A&M University, July 2022
- Topological Data Visualization Workshop (online), University of Iowa, May 2022
- TXLA Undergraduate Math Conference, University of Houston, March 2022